

AL.2.2002-170

University of Alberta Library



0 1620 3370487 3

Mathematics 5



Module 7

Home Instructor's Guide and Assignment Booklet 7B



Learning
Technologies
Branch

Alberta

LEARNING

Mathematics 5
 Module 7: Length and Area
 Home Instructor's Guide and Assignment Booklet 7B
 Learning Technologies Branch
 ISBN 0-7741-2070-3

This document is intended for	
Students	✓
Teachers	✓
Administrators	
Home Instructors	✓
General Public	
Other	



You may find the following Internet sites useful:

- Alberta Learning, <http://www.learning.gov.ab.ca>
- Learning Technologies Branch, <http://www.learning.gov.ab.ca/lrb>
- Learning Resources Centre, <http://www.lrc.learning.gov.ab.ca>

The use of the Internet is optional. Exploring the electronic information superhighway can be educational and entertaining. However, be aware that these computer networks are not censored. Students may unintentionally or purposely find articles on the Internet that may be offensive or inappropriate. As well, the sources of information are not always cited and the content may not be accurate. Therefore, students may wish to confirm facts with a second source.

ALL RIGHTS RESERVED

Copyright © 2002, the Crown in Right of Alberta, as represented by the Minister of Learning, Alberta Learning, 11160 Jasper Avenue, Edmonton, Alberta T5K 0L2. All rights reserved. Additional copies may be obtained from the Learning Resources Centre.

No part of this courseware may be reproduced in any form, including photocopying (unless otherwise indicated), without the written permission of Alberta Learning.

Every effort has been made both to provide proper acknowledgement of the original source and to comply with copyright law. If cases are identified where this effort has been unsuccessful, please notify Alberta Learning so that appropriate corrective action can be taken.

IT IS STRICTLY PROHIBITED TO COPY ANY PART OF THESE MATERIALS UNDER THE TERMS OF A LICENCE FROM A COLLECTIVE OR A LICENSING BODY.

Lesson 3: Relating Perimeter and Area**Overview**

Lesson 3 explores the relationship between perimeter and area, particularly of rectangular figures. The student will apply these ideas to solve problems.

Special Requirements

You may gather the following materials for your student to use in this lesson:

- string
- 1-cm grid paper
- small square tiles from pattern blocks

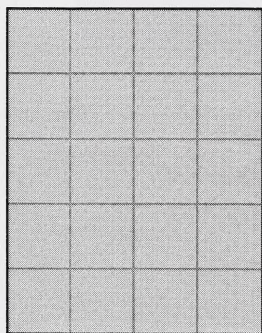
Sharing Time

There is one Sharing Time exercise in Lesson 3—at the end of Activity 3.

Activity 3 Sharing Time

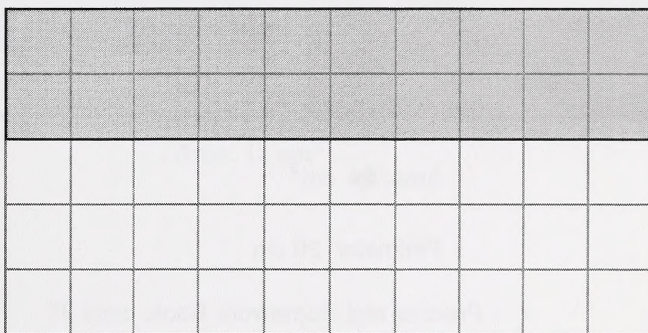
Practice and Homework Book, page 95

1.



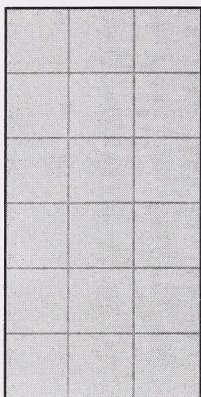
Area: 20 cm^2

Perimeter: 18 cm

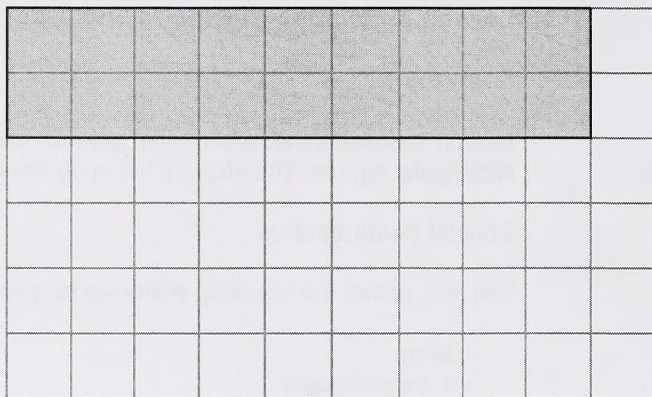


Perimeter: 24 cm

2.

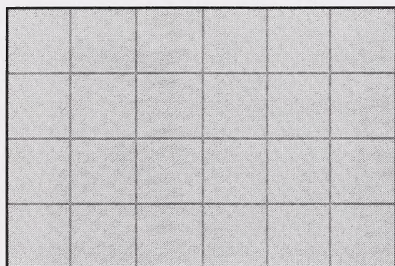
Area: 18 cm^2

Perimeter: 18 cm

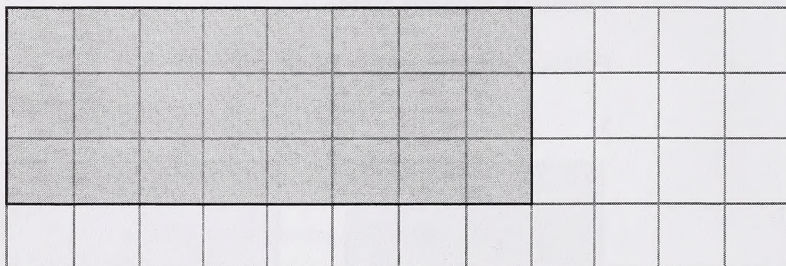


Perimeter: 22 cm

3.

Area: 24 cm^2

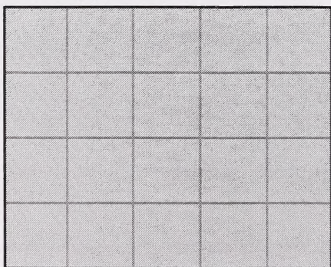
Perimeter: 20 cm



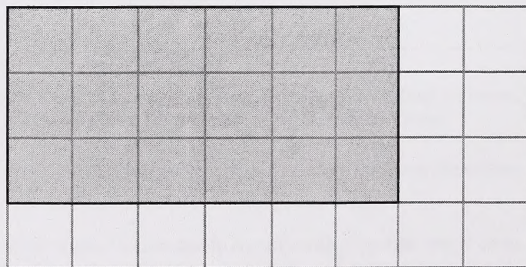
Perimeter: 22 cm

Practice and Homework Book, page 97

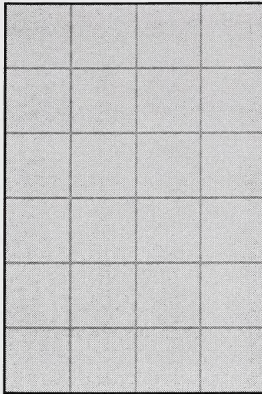
1.



Perimeter: 18 cm

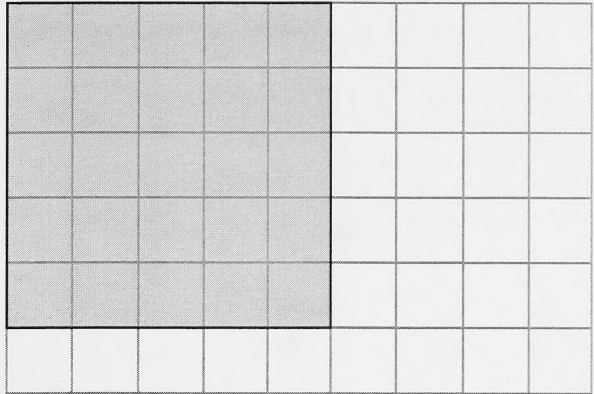
Area: 18 cm^2 Area: 20 cm^2

2.



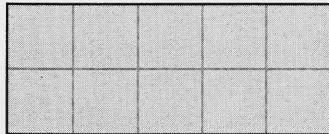
Perimeter: 20 cm

Area: 24 cm²



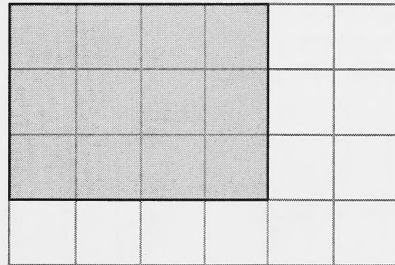
Area: 25 cm²

3.




Perimeter: 14 cm

Area: 10 cm²



Area: 12 cm²



Digitized by the Internet Archive
in 2016

https://archive.org/details/mathematics577albe_0

ASSIGNMENT BOOKLET 7B

Mathematics 5

Module 7: Lesson 3 Assignment and Numbers in the News

Home Instructor's and Student's Comments:

STUDENT FILE NUMBER
(if label is missing or incorrect)

Date Submitted:

Apply Module Label Here

Name

Address

Postal Code

*Please verify that preprinted label is for
correct course and module.*

FOR SCHOOL USE ONLY

Assigned Teacher:

Date Assignment Received:

Grading:

Teacher's Comments

Teacher's Signature

Home Instructor: Keep this sheet when it is returned to you as a record of the student's progress.

INSTRUCTIONS FOR SENDING IN THIS DISTANCE LEARNING ASSIGNMENT BOOKLET

When you register for distance learning courses, you are expected to send in Assignment Booklets for corrections regularly. Try to send each Assignment Booklet as soon as you have completed it. Before sending your Assignment Booklet, please check the following:

- Are all the assignments completed? If not, explain why.
- Has your work been reread to be sure the spelling and details are correct?
- Is the record form filled out and the correct module label attached?

MAILING

1. Postage Regulations

Do **not** enclose letters with Assignment Booklets.

Send all letters in a separate envelope.

2. Postage Rates

Take your Assignment Booklet to the post office and have it weighed. Attach enough postage and seal the envelope. Assignment Booklets will travel faster if correct postage is used and if they are in large envelopes that are no more than two centimetres thick.

FAXING

1. Assignment Booklets may be faxed. Contact your teacher for the fax number.
2. All faxing costs are the responsibility of the sender.

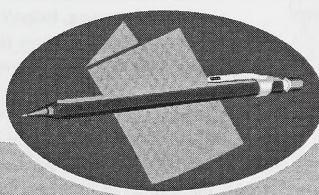
E-MAILING

Assignment Booklets may be e-mailed. Contact your teacher for the e-mail address.

Mathematics 5

Module 7

Length and Area **ASSIGNMENT BOOKLET 7B**



Learning
Technologies
Branch

Alberta
LEARNING

FOR TEACHER'S USE ONLY

Summary

	Total Possible Marks	Your Mark
Lesson 3 Assignment	34	
Numbers in the News	10	
	44	

Teacher's Comments

Mathematics 5
Module 7: Length and Area
Assignment Booklet 7B
Lesson 3 Assignment and Numbers in the News
Learning Technologies Branch

This document is intended for	
Students	✓
Teachers	✓
Administrators	
Home Instructors	
General Public	
Other	



You may find the following Internet sites useful:

- Alberta Learning, <http://www.learning.gov.ab.ca>
- Learning Technologies Branch, <http://www.learning.gov.ab.ca/lrb>
- Learning Resources Centre, <http://www.lrc.learning.gov.ab.ca>

The use of the Internet is optional. Exploring the electronic information superhighway can be educational and entertaining. However, be aware that these computer networks are not censored. Students may unintentionally or purposely find articles on the Internet that may be offensive or inappropriate. As well, the sources of information are not always cited and the content may not be accurate. Therefore, students may wish to confirm facts with a second source.

Copyright © 2002, the Crown in Right of Alberta, as represented by the Minister of Learning, Alberta Learning, 10155 – 102 Street, Edmonton, Alberta T5J 4L5. Print copies may be obtained from the Learning Resources Centre. Digital copies are available to registered Alberta educators at the Tools4Teachers website: <http://www.tools4teachers.ab.ca>

Every effort has been made both to provide proper acknowledgement of the original source and to comply with copyright law. If cases are identified where this effort has been unsuccessful, please notify Alberta Learning so that appropriate corrective action can be taken.

ASSIGNMENT BOOKLET 7B

MATHEMATICS 5—MODULE 7: LENGTH AND AREA

Your mark on this module will be determined by how well you do your assignments in the Assignment Booklets.

Work slowly and carefully. If you are having difficulties, go back and review the appropriate lessons.

There is one lesson assignment and a Numbers in the News project in this Assignment Booklet. The total value of the lesson assignments is 34 marks. The Numbers in the News projects is worth 10 marks. The value of each assignment is stated in the left margin.

Be sure to proofread each assignment carefully.

34

Lesson 3 Assignment: Relating Perimeter and Area

1. Paul used 1-cm square tiles to plan a rectangular patio before buying 1-m square patio blocks. He began with a rectangle that had a perimeter of 20 cm and an area of 21 cm^2 .

- 2 a. Explain how you can use square tiles to find the dimensions of Paul's patio.

- 2 b. Draw a picture to show your answer.

④

- c. Paul decided to keep the perimeter of his model patio at 20 cm and change the area. Use tiles to find all other possible rectangles with a perimeter of 20 cm. Draw pictures that show your results.

③

- d. If Paul keeps the perimeter of his patio the same, describe what will happen to the area when he increases its length and when he decreases its length.

③

- e. If you had 20 m of decorative patio edging available, which of the possible rectangular plans would you choose to make a patio? Explain.

2. Monique had 60 patches of fabric, each measuring 2 dm by 2 dm, to make a rectangular patchwork quilt.

⑥

- a. Complete the following table to list all possible rectangles you could make with 60 square patches and the dimensions of the quilts. You may use tiles or grid paper if it helps you to find them.

Dimensions of Arrays of Squares	Dimensions of Quilt (in dm)
1 unit by 60 units	2 dm by 120 dm

③

- b. Which of the dimensions you listed would be reasonable for making a quilt? Explain.

②

- c. Monique decided that she wanted to make a square quilt. How many of her 60 patches would she use to make the largest square possible? Explain.

②

- d. What is the actual area of each of the patches Monique has? Explain.

②

- e. What would be the actual area of Monique's square quilt? Show your work.

- ② f. Monique decided to purchase extra patches to add to the 60 patches she already had in order to make an even larger square quilt. What is the least number of additional patches she needed to purchase? Explain.

- ③ 3. If a square has the same perimeter as a different rectangle, how will their areas compare? Use words and draw pictures to explain your reasoning.

10

Numbers in the News

Go through the scavenger hunt list for Module 7 to make sure you have clipped at least one sample for each question. Ask your home instructor to check the samples you found. Choose the sample you wish to use, and label each one with the scavenger hunt number it matches. Organize your samples and put them together with any other information required. Submit your project with this Assignment Booklet.

Ask yourself the following questions:

- Is my Numbers in the News project complete? (Have I included all my samples?)
- Do my samples show the ideas clearly? (Are my examples appropriate)?
- Did I take care to be neat when organizing and labelling my work?

